



Accomplishments in 2003 and 2004

Aerial Photography and Resource Mapping

Work continued with partners on the acquisition and production of new imagery products and the production and acquisition of integrated digital geospatial data and graphic maps for the United States–Mexico border region; a multi-year, multi-million dollar project.

Digital Orthophotoquads

In Fiscal Years (FY) 2002 and 2003, as part of the National Aerial Photography Program (NAPP), aerial photography was flown along the international border in California, Arizona, Texas and a portion of New Mexico. In FY 2003, U.S. Geological Survey (USGS) created 440 Digital Orthophoto Quadrangles (DOQs) along the Rio Grande as a cost share with the Texas Water Development Board and EPA. Additionally, USGS flew high resolution 6-inch color photography and created approximately 46 DOQs around the El Paso area for the Department of Homeland Security. In New Mexico, 568 DOQs were created along its border with Mexico from the FY 2003 NAPP imagery. All (1,124) DOQs along the California border were completed in FY 2004. The Arizona DOQs are being planned for production in FY 2005.

The Texas Water Development Board and the International Boundary and Water Commission (IBWC) cooperated with the Farm Services Administration to fly the entire state of Texas with the ADS40 Leica digital camera during Calendar Year 2004. The new digital imagery at one meter resolution will be made into Mr. Sid compressed DOQs and Geotiff full resolution images within four months of flight completion and available for the public. IBWC provided extra funding to fly over Mexico, within a ten-mile buffer area for production of new photo image maps of the United States-Mexico border. Due to the heavy rainfall in Texas, the photo acquisition has been slightly delayed. Progress can be tracked at <http://naip.csr.utexas.edu/>

Natural Hydrography Dataset

Revised hydrography at 1:24,000-scale has been integrated into the National Hydrography dataset for all watersheds within the Texas/Mexico border region. Additionally, the Salt Basin area of New Mexico has been completed at 1:24,000 scale. The data can be viewed and downloaded at <http://nhdgeo.usgs.gov/viewer.htm>

Cultural Resources

A compilation of historic papers presented at previous International Colloquiums of the Camino Real de Tierra Adentro was completed and reproduced in CD format. CD's will be available for free distribution after November 2004 at the National Park Service (NPS) International Conservation Programs Office (IMRICO) in Santa Fe, NM. For more information contact Ramon R. Olivas at 505-988-6026.

BLM and its partners from the New Mexico Department of Cultural Affairs and Peregrine Arts Sound Archives have published a 3 CD-set audio history of El Camino Real. This CD program will serve as the basis for a public radio series and book-length guide to the trail; it is being distributed through the Public Lands Interpretive Association bookstores.

El Camino Real Trail Administration (the joint BLM/NPS management entity for the national historic trail) participated in community workshops on heritage tourism impacts in El Paso, Texas, with Ysleta del Sur Pueblo, and at San Juan Pueblo, New Mexico. These workshops resulted in the development of community-based rapid ethnographic assessment programs for implementation in FY2005. El Camino Real Trail Administration also is working with the city and county of El Paso, Texas, to develop a comprehensive plan for the riverfront from the Oñate Crossing to Keystone Park, and with BLM on an interpretive site plan for the La Cieneguilla area.

The Boots and Saddles Group, which brings together managers from New Mexico's territorial period forts, has been reconstituted this year to pursue projects of mutual interest, including protection and interpretation of the territorial period and the history of the military in New Mexico. BLM coordinated its work with state and other federal initiatives. A new MOU is being signed, a 501(c)(3) is being organized, and a cost reimbursable fund-raising relationship is being established with the New Mexico Heritage Preservation Alliance. Jointly produced brochures are under production and funding assistance from the New Mexico Department of Tourism is being explored.

A Comprehensive Management Plan/Final Environmental Impact Statement for El Camino Real National Historic Trail was finalized in FY2004.

BLM and INAH signed a Joint Declaration to provide teacher workshops and bilingual instructional assistance on lesson plans on trade and travel along El Camino Real de Tierra Adentro.

BLM, NPS and the Spanish Colonial Research Center have an Interagency Agreement. In FY2004, NPS and BLM planned a site assessment program to identify those sites most likely to succeed as stewarded sites in the Site Watch program. BLM and NPS are working to develop a site steward-based monitoring program for Camino Real de Tierra Adentro properties.

In February 2004, BLM, in partnership with NPS, dedicated a 38 mile segment of Juan Bautista de Anza National Historic Trail. This portion of trail stretches north from the Mexican border through the Yuha Desert Area of Critical Environmental Concern. U.S. Congressional representatives, local politicians, reporters, equestrians, the U.S. Border Patrol and others celebrated the occasion. "Juan Bautista" himself was master of ceremonies. Special guests from Mexico, including representatives from INAH, participated. INAH expressed interest in dedicating a nearby section of the trail in Mexico.

The BLM El Centro Office and the NPS office of the Juan Bautista de Anza National Historic Trail collaborated on signing and interpreting the Yuha Desert section of the trail in southeastern California. Trail visitors are greeted with large portal signs, trail markers, and an interpretive brochure highlighting the natural and cultural values of the area.

Habitat Conservation

A captive breeding facility was constructed on Cabeza Prieta National Wildlife Refuge and stocked with several animals trans-located from Sonora as directed by the Sonoran pronghorn international recovery team. U.S. Fish and Wildlife Service (FWS), Arizona Game and Fish Department, NPS, Pinacate Biosphere Reserve, and the Institute for the Environment and Sustainable Development for the State of Sonora (IMADES) participated in this effort.

The Sonoran Joint Venture continued work in Baja California, Sonora, southern California, and southern Arizona to create bird habitat and partnerships between all agencies, non-government organizations (NGOs), and private landowners. An FCC member is on the Sonoran Joint Venture Management Board.

BLM continues to participate in the Border Area Fire Council (BAFC). The BAFC consists of over 20 local, state, and federal fire, law enforcement, and natural resource agencies, including those in Baja California, Mexico. The BAFC has been successful in coordinating fire prevention and suppression, resource protection, training, and safety on both sides of the border. BLM and partners are updating the border area resource handbook used by firefighters, law enforcement, and other field personnel (BLM will reprint). The handbook contains maps, land ownership,

special area designations (wilderness, etc.), and information on the special resources along the border, along with special rules and regulations pertaining to fire suppression activities.

Lower Rio Grande

A report resulting from a cooperative effort between USGS and FWS on wintering grassland birds at the Laguna Atascosa National Wildlife Refuge has been completed. The report documents the use of native grassland habitats vs. exotic grass species such as buffelgrass by wintering birds in coastal prairie habitats.

USGS, in cooperation with the Canadian Wildlife Service, FWS, and Texas A&M University has completed interim reports on a continuing cooperative effort to study the use of artificial burrows by burrowing owls. The burrowing owl is one of only 11 species of birds identified for joint protection by international agreement between Canada, the United States, and Mexico. South Texas is an important wintering area for this migratory species, where it frequently uses road-side culverts for shelter due to loss of natural habitat.

USGS is continuing investigations to determine the occurrence of hormonal effects of endocrine disrupting chemicals in cliff and cave swallows in several reaches of the lower Rio Grande.

A web-based report, by USGS in cooperation with NPS and SEMARNAT, describing water quality conditions and a biological reconnaissance of the Upper and Lower Canyons reaches of the Rio Grande in the vicinity of Big Bend National Park has been completed and is available on the internet at <http://tx.usgs.gov/bigbend/index.html>.

USGS in cooperation with FWS has recently completed a fish community survey of the "Forgotten Reach" of the Rio Grande, and is currently initiating a project to evaluate native fish communities in the Rio Grande at Big Bend National Park and in the flowing reaches of the Pecos and Devils Rivers upstream of Amistad International Reservoir.

USGS has undertaken a project entitled "Environmental Health in the U.S.-Mexico Border Region." The objective of the project is to develop an earth and biological resources special database using an Internet map service. This effort will help further understanding of the linkages between the condition of the physical environment and environmental/human health. A stakeholder workshop was held in McAllen, Texas during April 27-28, 2004 to present the project and to encourage the participation and collaboration of other Federal, state, and local entities from both the United States and Mexico. Available data bases were assembled, an internet map service was developed, and a fact sheet describing these projects is in draft. These projects also were presented to local stakeholders in the Brownsville-Matamoros area on November 2-3, 2004.

NPS, Angelo State University, and USGS have completed a cooperative effort to evaluate the distribution, life history, and habitat requirements for the endangered Chisos hedgehog cactus in Big Bend National Park.

USGS has published a 117-page report on environmental contaminants in the Rio Grande Basin entitled "Biomonitoring of Environmental Status and Trends (BEST) Program: Environmental Contaminants and their Effects on Fish in the Rio Grande Basin." The report is available from USGS as Scientific Investigations Report 2004-5108.

USGS and NPS cooperated in completing an "Inventory of Fish Communities in the Rio Grande and Selected Tributaries from Upstream of Big Bend National Park to Amistad Dam." The objectives of this study were to: 1) inventory fish communities in the Rio Grande and selected tributaries from the upstream end of Big Bend National Park, through the Wild and Scenic Reach downstream of Big Bend National Park, and to the dam at Amistad International Reservoir; 2) provide seasonal fish community data by completing one pass of the Rio Grande, tributaries, and Amistad International Reservoir in the summer of 2003; and one pass of the Big Bend and Pecos and Devils River reaches in the late winter to early spring of 2004; and 3) ensure that sites sampled in surveys from the 1950s and 1980s are re-sampled in this study, to the extent possible, using equivalent methods.

USGS continues to conduct amphibian research and monitoring at sites across the nation including Big Bend National Park. In FY 2003, USGS characterized ambient water-quality conditions at a number of amphibian monitoring sites within the park, replicating sites across the habitat types. Data loggers were used to continuously monitor temperature at a subset of these sites. This information will be used to design future experiments in terms of understanding and replicating natural conditions of amphibian habitats characteristic of the Big Bend region.

Research and Management of Shared Water Resources

The FCC was represented on the Organizing Committee for the First Interagency Conference on Research in the Watersheds, held in Benson, Arizona, October 27-30, 2003. The conference highlighted current research which is relevant and applicable to the watershed scale. BLM and USGS were sponsors along with USDA Agricultural Research Service, U.S. Forest Service, Natural Resources Conservation Service, EPA and the Consortium of Universities for the Advancement of Hydrologic Science (CUAHSI).

An FCC member continues to actively participate as a member of the Good Neighbor Environmental Board.

BLM Palm Springs-South Coast Field Office is participating in regional planning for the Tijuana River Watershed. Partners include state, federal, and local governments in California and Baja California, San Diego State University, and several non-government organizations.

The USGS's National Stream Gaging Network consists of a core of USGS funded and operated stream gages, stream gages operated by the USGS but funded in cooperation with other agencies, and stream gages funded and operated by other agencies that provide data appropriate to meet the goals of the NSIP. Although the National Stream gage Network is operated primarily by the USGS, it is funded by a partnership with agencies at the Federal, State, Tribal, and local levels. Streamflow data typically are recorded at 15-60 minute intervals, stored onsite, and then transmitted to USGS offices every 1 to 4 hours, depending on the data relay technique used. Recording and transmission times may be more frequent during critical events. Data from real-time sites are relayed to USGS offices via satellite and in some cases via telephone and/or radio. These data are available for viewing within minutes of arrival via the web at <http://water.usgs.gov/> and are published annually. Over 800 agencies at the Federal, State, Tribal, and local levels nationwide participate.

At the request of International Shared Aquifer Resources Management (ISARM), members of the FCC, International Boundary and Water Commission (IBWC), and the Comision Internacional De Limites Y Aguas Entre Mexico (CILA—International Border and Water Commission, Mexico Section)], gave presentations at the Transboundary Aquifers of the America's meeting. The intent of these presentations was to communicate to the representatives of the other countries that the United States and Mexico share a border that is plagued by a general lack of water for municipal and natural resource needs. An additional objective of the presentations was to impress upon the meeting attendees that a working knowledge regarding the border region's water resources is lacking and there exists a need to conduct the scientific studies necessary to characterize and quantify water availability and sustainability.

United States-Mexico Environmental Education

BLM, FWS, U.S. Forest Service, U.S. Environmental Protection Agency, the San Diego Natural History Museum, and other partners completed the production of an environmental education package on the Tijuana River Watershed and its importance to the residents on both sides of the border. A CD ROM will be distributed in Mexico by TELNOR, the Baja California telephone company. The CD is being distributed through the San Diego Natural History Museum and PROBEA (Project for bio-regional education). The CD has been awarded special recognition by the National Association for Interpretation (nominated by BLM, award to Digital Contact-the contractor). A follow up video has been produced by San Diego Natural History Museum, USFWS, and PROBEA.

United States-Mexico “Sister” Areas

On August 11-13, 2004, NPS and la Comision de Areas Naturales Protegidas “Sister Area” park managers met in Las Cruces, New Mexico. The purpose of the meeting was to 1) clarify and enhance the U.S.-Mexico “Sister Areas” Program and 2) to identify projects for 2004-06. Examples at Organ Pipe Cactus National Monument, El Pinacate Reserve, and the Gran Desierto de Altar Reserve include: 1) monitoring and research on rodent, reptile, bat, fish, and turtle species; 2) monitoring and control of exotic species; 3) climatic monitoring; 4) monitoring of Quito-Vaquito Río Sonoita watersheds; and 5) identification and monitoring of biological corridors for antelope, deer, and sheep species. Examples at Organ Pipe Cactus National Monument and El Pinacate Reserve include: 1) technical assistance on antelope recuperation; 2) organization of tourism tours of the Sister Areas; and 3) design of informative museum exhibits on the sites of interest at adjacent Sister Areas. An example at Coronado National Monument, Chiricahua National Monument, Tumacacori National Historical Park, and Sierra de Los Alamos-Ajos-Bavispe is an exchange of experiences on management of protected areas and environmental education. An example at Coronado National Memorial and Parque Nacional El Chico is a volunteer exchange program. At Saguaro National Park-Organ Pipe-Pinacate-San Pedro Mártir y Constitución 1857, it is a Sonoran desert restoration training session. And, at Big Bend National Park, Sierra del Carmen, and Canon de Santa Elena it is a Tamarix control and eradication program.

BLM continued its participation with PRONATURA and the Fundacion La Puerta in the joint management of a preserve that joins important open space and wildlife corridors in Mexico (Rancho Cuchuma) with the protected public lands that BLM and the State of California manage in the United States (Tecate Peak/Kuchamaa Area of Critical Environmental Concern). A conservation easement for the Rancho Cuchuma was acquired and dedicated by PRONATURA and the Fundacion La Puerta in 2003. This conservation area is adjacent to BLM’s Kuchamaa ACEC, creating a total area of about 5,000 acres. In 2004, BLM, California Department of Forestry and Fire Protection (CDF), PRONATURA, and Fundacion La Puerta developed a draft MOU to coordinate joint management of these lands. Signature by CDF has been held up due to recent changes in CDF administration.

Upper San Pedro River Basin

Collaboration continued with Asociación Regional Ambiental de Sonora y Arizona (ARASA—a Cananea-Naco Sonora, Mexico area citizens group), The Udall Center for Studies in Public Policy, The Nature Conservancy, and others interested in environmental education and managing and protecting the water and other resources in the Upper San Pedro River Basin.

BLM and NPS continued to support and work with the Southeast Arizona Bird Observatory, biologists from Mexico’s Secretariat for the Environment and Natural Resources (SEMARNAT), and others monitoring avian productivity and survivorship (MAPS) in the Upper San Pedro River Basin in southern Arizona and northern Sonora, Mexico. Banding results for 2003 were reported in May 2004. Banding results for 2004 were reported in October 2004.

Other

The FCC, in partnership with the Southwest Strategy, in May 2004, printed and distributed copies of a “Synthesis of Ecological Activities along the U.S.-Mexico Border, Arizona-Sonora and California-Baja California,” and a “Synthesis of Vertebrate Studies along the U.S.-Mexico Border.” Both were done in Spanish and English.

The FCC published and distributed the first issue of the FCC Newsletter in September 2004. The Newsletter highlighted topics featured at its April 2004 meeting along with a brief description of the FCC and its members.

The FCC provided support and several of its members participated as members of the Organizing Committee for a Western Governors Association—USGS Drought Workshop held March 11-12, 2004 in Tempe, Arizona.